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SERIAL NO: 09/722,602

APPLICANT: FILING DATE: Frances H. ARNOLD, et al. November 27, 2000

**U.S. PATENT DOCUMENTS** 

\*EXAMINER INITIALS

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6,090,604

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FOREIGN PATENT DOCUMENTS

\*EXAMINER <u>INITIALS</u>

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**TRANSLATION** 

YES NO

**OTHER REFERENCES** (INCLUDING AUTHOR, TITLE DATE, PERTINENT PAGES, ETC.)

\*EXAMINER INITIALS

2.

Rogers, M.S. et al., Characterization of the Active Site of Galactose Oxidase and Its Active Site Mutational Variants Y495/F/H/K and W290H by Circular Dichroism Spectroscopy. Inorganica Chimica Acta.

**EXAMINER:** 

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Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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### **U.S. PATENT DOCUMENTS**

*EXAMINER INITIALS	DOCUMENT NUMBER	DATE	<u>NAME</u>	CLAS	S SUBCLASS	FILING DATE
1. 2. 2. 4. 4. 4. 4. 4. 4. 4. 4. 4. 4. 4. 4. 4.	5,965,408 5,837,458 5,830,721 5,811,238 5,741,691 5,605,793	10/12/99 11/17/98 11/03/98 09/22/98 04/21/98 02/25/97	Short Minshull et al. Stemmer et al. Stemmer et al. Arnold et al. Stemmer	435 435 435 435 435 435	91.1 6 172.1 6 197 6	

### **FOREIGN PATENT DOCUMENTS**

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INITIALS	<u>NUMBER</u>	<u>DATE</u>	COUNTRY	<u>CLASS</u> <u>SUBCLASS</u>	YES	<u>NO</u>
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9.	WO 00/18906	04/06/00	PCT	C12N 15/10	Χ	
10.	WO 00/09679	02/24/00	PCT	C12N 15/10 (A	Abstract)	Χ
\ 11	WO 00/04190	01/27/00	PCT	C12Q 1/6B	Χ	
12	WO 00/00632	01/06/00	PCT	C12 P 2/0 6	Χ	
13	WO 98/42832	10/01/98	PCT	C12N 15 09	Χ	
14	WO 98/31837	07/23/98	PCT	C12/Q 1/6/8	Χ	
15	WO 97/35966	10/02/97	PCT	C12N 15100	Χ	
16	WO 97/20078	06/05/97	PCT	C12Q 1/68	Χ	
17	WO 95/22625	08/24/95	PCT	C12Q 1/68	Χ	
J 18	WO 98/41653	9/24/98	PCT	1	Χ	

# OTHER REFERENCES (INCLUDING AUTHOR, TITLE DATE, PERTINENT PAGES, ETC.)

# \*EXAMINER INITIALS

22

↑ 19 Adanyi, N., et al., European Food Research and Technology, 1999; 209:220-226.

20 Aisaka, K., et al., Agric. Biol. Chem., 1981; 45(10):2311-2316

21 Amaral, D., et al., Methods Enzymol., 1966; 9:87-92

Anfinsen, C. B., Science, 1973; 181:223

23 Arkin, A., et al., Proc. Natl. Acad. Sci. USA, 1992; 89:7811

24 Arnold, F. H., Accounts Chem. Res., 1998; 31:125-131

Jn 1.10.2002

### LIST OF REFERENCES CITED BY APPLICANT

(Use Several Sheets if Necessary)

DOCKET NO.:

9373/1G811-US1

SERIAL NO: 09/722,602

APPLICANT:

Frances H. ARNOLD, et al.

FILING DATE:

November 27, 2000

yrl.

- 25. Arnold, F.H., et al., Adv. Biochem. Eng. Biotechnol., 1997; 58:1-14
- 26. Arnold, F.H., FASEB J., 1993; 7:744-749
- 27. Arts, S.J.H.F., et al., Synthesis-Stuttgart, 1997; 6:597-613
- 28. Avigad, G., Arch. Biochem. Biophys., 1985; 239(2):531-537
- 29. Avigad, G., Anal. Biochem., 1978; 86:470-476
- 30. Avigad, G., et al., J. Biol. Chem., 1962; 237:2736-2743
- 31. Baron, A. J., et al., J. Biol. Chem., 1994; 269:25095-25105
- 32. Beckman, R. A., et al., Biochemistry, 1994; 24:5810
- Bernarderz-Clark, E. D.; Georgiou, G. Inclusion Bodies and Recovery of Proteins from the Aggregated States. In Protein Refolding; Bernarderz-Clark, E. D., Georgiou, G., Eds,; ACS: Washington, D. C. p. 1-20 (1990)
- 34 Better, M., et al., Science, 1988; 240:1041
- 35 Borman, C. D., et al., J. Biol. Inorg. Chem., 1997; 2:480-487
- 36 Bradford, M., Anal. Biochem., 1978; 72:248-254
- 37 Calderhead, D. M., et al., J. Biol. Chem., 1988; 263:12171-12174
- 38 Caldwell, R. C.; Joyce, G. F. PCR Methods Applic. 2, 28 (1992)
- 39 Calvin, N.M., et al , J. Bacteriol., 1988; 170(6):2796-2801
- Carbon, J., Clarke, L.; Ilgen, C.; Ratzkin, B. The Construction and Use of Hybrid Plasmid Gene Banks in Escherichia coli. In Recombinant Molecules: Impact on Science and Society; Beers, R. F. J., Bassett, E. G., Eds; Raven Press; New York, pp 355-378 (1977)
- 41 Castelli, M. C. et al., Gene, 1994; 142 113
- 42. Chang et al., Nature Biotechnol, 1999; 17:793-797
- 43 Chen, K. & Arnold, F.H., Proc. Natl. Acad. Sci. USA, 1993; 90:5618-5622
- 44. Cherry, J.R., et al., Nature Biotechnol., 1999; 17:379-384
- 45. Christians et al., Nature Biotechnol., 1999; 17:259-264
- 46. Cleland, J. L, et al., Bio/Technology, 1990; 8:1274
- 47 Crameri, A., et al., Nature, 1998, 391:228-231
- 48 Crameri, A., et al., Nature Biotechnol., 1997; 15:436-438
- 49 Crameri, A, et al., Nature Biotechnol., 1996; 14:315-318
- 50. Crameri, A, et al., Nature Med., 1996; 2:100-103
- 51. Crameri, A, et al., Angew. Chem. Int. Ed. Engl., 1980; 19:546-547
- 52 De Sutter, et al., GENE, 1994; 141:163
- Delagrave et al., Bio/Technology, 1993; 11:1548
- Delagrave et al. Protein Engineering, 1993; 6:327
- 55 Dower, W.J., et al., Nucleic Acids Res., 1988; 16(13):6127-6145
- 56 Dunford, H.B., Peroxidases in Chemistry and Biology, 1991; Vol 2. pp. 1-24
- 57 Egorov, A. M., et al., Ann. N. Y. Acad. Sci., 1991; 646:35
- 58 Fiedler, K. & Simons, K., Cell, 1995; 81:309-312
- 59. Fitzgerald et al., Biochemistry, 1994; 33:3807
- Gahmberg, C. G., and Tolvanen, M., Methods Enzymol., 1994; 230:32-44
- 61 Gajhede, M., et al., Nature Struct. Biol., 1997; 4:1032
- 62. Gazaryan, I.G., LABPV Newsletters, 1994; 4:8-15
- 63. Gietz, D., et al., Yeast, 1995, 11 355
- 64. Gillam, E.M., et al., Arch. Biochem. Biophys., 1995; 319:540-550

J. 1.10.2002

## LIST OF REFERENCES CITED BY APPLICANT

(Use Several Sheets if Necessary)

DOCKET NO.:

9373/1G811-US1

SERIAL NO: 09/722,602

APPLICANT:

Frances H. ARNOLD, et al.

FILING DATE:

November 27, 2000

- 65. Giver, L., et al., Proc. Natl. Acad. Sci. USA , 1998; 95:12809-12813
- 66. Giver, L., and Arnold, F.H. Curr. Opinion Chem. Biol., 1998; 2: 335-338
- 67. Goldman, E. R. and Youvan D. C., Bio/Technology, 1992; 10:1557
- 68. Goodin, D. B., et al., Biochemistry, 1991; 30:4953
- 69. Goshorn, S. C., et al., Cancer Res., 1993; 53:2123
- 70. Gramm, H. et al., Proc. Natl. Acad. Sci. USA, 1992; 89:3576
- 71. Guengerich et al., Meth. Enzymol., 1996; 272:35-44
- 72. Gussow, D. & Clackson, T., Nucleic Acids Res., 1989: 17:4000-4000
- 73. Hamilton et al., J. Am. Chem. Soc., 1978; 100(6):1899-1912
- 74. Hamilton, G.A., de Jersey, J., and Adolf, P.K. (1973) Galactose oxidase: The complexities of a simple enzyme., in King, T.E., et al. Eds., Oxidases and related redox enzyme, University Park Press, Baltimore, MD, 103-124
- 75. Haschke, R.H. & Friedhoff, J.M., Biochim. Biophys. Res. Commun., 1978; 80(4):1039-1042.
- 76. Helenius, A., Mol. Biol. Cell , 1994; 5:253-265
- 77. Hermes, J. D. et al., Proc. Natl. Acad. Sci. USA, 1990; 87:696
- 78. Ito et al., Methods Enzymol., 1995; 258:235-262
- 79. Ito et al., J. Mol. Biol., 1994; 238:794-814
- 80. Ito et al., Nature, 1991; 350:87-90
- 81. Joo et al., Chem. Biol., 1999; 6:699-706
- 82 Joo et al., Nature, 1999; 399:670-673
- 83 Khosla et al., Bio/Technology, 1990; 8:849-853
- 84 Kiba et al., J. Chromatogr., 1989; 463:183-187
- Klibanov et al., Biochem. Biophys. Res. Commun., 1982; 108:804-808
- 86 Knappik, A.; Pluckthun, A, Protein Eng., 1995; 8(1):81-89
- 87 Koroleva et al., Prikl. Biokhim. Mikrobiol., 1983;19(5): 632-637
- 88. Kosman, D.J. (1984) Galactose oxidase., in Lontie, R., Eds., Copper proteins and copper enzymes. Vol. 2., CRC Press, Boca Raton, Fla., 1-26
- 89 Koster et al., Synthesis, 1982; 650-652
- Wuchner, O., and Arnold, F.H., Trends Biotechnol., 1997; 15:523-530
- 91 Lei et al., J. Bacteriol., 1987; 169:4379
- 92 Liu et al., J. Am. Chem. Soc., 1999; 121:466-467
- 93. Lis, M., and Kuramitsu, H.K. Antimicrob. Agents Chemother., 1997; 41(5):999-1003
- 94 Leung, D. W. et al., Technique, 1989; 1(1):11-15
- 95 Mannino et al., Italian Journal of Food Science, 1999; 11:57-65
- 96 Maradufu et al., Carbohydr. Res., 1974; 32:93-99
- 97 Maradufu et al., Canad. J. Chem., 1971; 49:3429-3436
- 98 Marrs, B, L, IBC's Fifth Annual World Congress on Enzyme Technologies, March 1, 2000.
- 99. Martin, I. G., Macias, E. M., Sanchez, J. S., and Rivera, B. G. (1998) Food Chemistry 61, 281-286
- 100. Martin, B.D., Linhardt, R.J., and Dordick, J.S. (1998) Highly swelling hydrogels from ordered galactose-based polyacrylates., Biomaterials, 19(1-3), 69-76
- 101. Martineau, P. et al., J. Mol. Biol., 1998; 20:117-127
- 102. Mazur, A. W., and Hiler, G. D., J. Org. Chem., 1997; 62:4471-4475
- Mazur, A. in Enzymes in Carbohydrate Synthesis (1991) Bednarski, M. D. and Simon, E. S. Eds, pp. 99-110

Yng Pan 1.10.2002

#### LIST OF REFERENCES CITED BY APPLICANT

(Use Several Sheets if Necessary)

DOCKET NO.:

9373/1G811-US1

SERIAL NO: 09/722,602

APPLICANT:

Frances H. ARNOLD, et al.

FILING DATE:

November 27, 2000

- McPherson, M.J., Stevens, C., Baron, A.J., Ogel, Z.B., Seneviratne, K., Wilmot, C., Ito, N., Brocklebank, I., Phillips, S.E.V., and Knowles, P.F. (1993) Galactose oxidase: Molecular analysis and mutagenesis studies., Biochem. Soc. Transact., 21:752-756
- 105. McPherson, M.J., et al. J. Biol. Chem., 1992; 267(12):8146-8152
- 106. Mendonca, M.H., and Zancan, G.T., Arch. Biochem. Biophys., 1988; 266(2):427-434
- 107. Mendonca, M. H., and Zancan, G. T. Arch. Biochem. Biophys., 1987; 252(2):507-514.
- 108. Miele, R.G., et al. J.Biol.Chem., 1999; 274 7769-7776
- 109. Minshull and Stemmer, Curr. Opin. Chem. Biol., 1999; 2:284-290
- 110. Mitraki, A.; King, J. FEBS Lett., 1992; 307(1):20-25
- 111. Miyazaki, K., et al., J.Mol.Biol., 2000; 297:1015-26
- 112. Moore, J.C., et al., J. Mol. Biol., 1997; 272 336-347
- 113. Moore, J. C., et al., Nature Biotechnol., 1996; 14:458
- 114. Nagayama, Y., et al., J. Biol. Chem., 1998; 273:33423-33428
- 115. Nakagawa, S., et al., Biosci. Biotech. Biochem., 1996; 60(3):415-420
- 116 Ness et al., Nature Biotechnol., 1999; 17:893-896
- 117 Oliphant, A. R. et al., Gene, 1986; 44:177-183
- 118 Ortlepp, S. A., et al., J. Biotechnol., 1989; 11:353-364
- Ostermeier, M., et al., Eukaryotic J. Biol. Chem., 1996; 271:10616
- 120 Parekh, R., et al., Protein Expres. Purif., 1995; 6:537-545
- 121 Patten et al., Curr. Opin. Biotechnol., 1997; 8:724-733
- 122 Rathore, D., et al., FEBS Lett., 1996; 392:259-262
- 123 Reynolds, M. P., et al., J. Biol. Inorg. Chem., 1997; 2:327-335
- 124 Rodriguez-Lopez, J.N., et al., J.Biol.Chem , 1995; 271:4023-4030
- 125 Romanos, M.A., et al., Yeast, 1992; 8:423-488
- 126 Root, R. L., et al., J. Am. Chem. Soc., 1985; 107:2997-2999
- 127 Said, I. T., et al., Histol. Histopathol., 1999; 14:351-357
- 128 Savenkova, M. I., et al., Biochemistry, 1998; 37:10828-10836
- 129 Saysell, C.G., et al., JBIC, 1997; 2:702-709
- 130 Schatz, P.J., et al., Annu. Rev. Genet., 1990; 24:215-248
- 131 Schein, C. H., Bio/Technology, 1990; 8:308-317
- 132 Schlegel, R.A., Carbohydr, Res., 1968; 7:193-199
- 133 Shafikhani, S., et al., Biotechniques, 1997, 23(2):304-310
- 134 Shao, Z.X., et al., Nucleic Acids Res., 1998; 26:681-683
- 135 Shindler, J. S.; Childs, R. E.; Bardsley, W. G. Eur. J. Biochem. 65, 325 (1976)
- 136 Sirotkin, K. J. Theor. Biol. 123, 261 (1986)
- 137. Smith, A.T., & Veitch, N.C. (1998) Curr.Opin.Chem.Biol., 2:269-278
- 138. Smith, A. T., et al., J. Biol. Chem., 1990; 265:13335-13343
- 139. Stemmer, W.P.C., Nature, 1994; 370:389-391
- 140. Stemmer, W. P. C., Proc. Natl. Acad. Sci. USA, 1994; 91:10747-10751
- 141. Stemmer, W. P. C., et al., Biotechniques, 1993; 14(2):256-265
- 142. Studier, F. W., et al., Meth. Enzymol., 1990; 185:60
- 143. Szabo, E. E., et al., Biosensors & Bioelectronics, 1996; 11:1051-1058
- 144. Tams, J. W., et al., FEBS Lett., 1998; 421.234-236

Gmbn 1.10.2002

### LIST OF REFERENCES CITED BY APPLICANT

(Use Several Sheets if Necessary)

DOCKET NO.:

9373/1G811-US1

SERIAL NO: 09/722,602

APPLICANT:

Frances H. ARNOLD, et al.

FILING DATE:

November 27, 2000

Thatcher, D. R.; Hitchcock, A. Protein Folding in Biotechnology. In Mechanisms of Protein Folding; Pain, R. H., Ed.: IRL Press: Oxford p. 229-261 (1994)

- Tkac, J., et al., Biotechnology Techniques, 1999; 13:931-936 146.
- Tressel, P.S., et al., Methods Enzymol., 1989; 89:163-171. 147.
- Tressel, P., et al., Anal. Biochem., 1980; 105:150-153 148.
- Tressel, P.S, "Chemical, Kinetic, and Spectral Properties of the Catalytic Mechanism of Galactose Oxidase," 149. Thesis, State University of New York at Buffalo, June 1980.
- Vega, F. A., et al., Anal. Chim. Acta, 1998; 373:57-62 150
- Vrbova, E., Peckova, J., and Marek, M. (1992) Collection of Czechoslovak Chemical Communications 57, 2287-151
- Wachter, R. M., and Branchaud, B. L., J. Am. Chem. Soc., 1996; 118:2782-2789 152.
- Welinder, K. G., Eur J. Biochem, 1979; 96:483-502 153.
- Wetzel, R., et al., Bio/Technology, 1991; 9:731 154.
- Whittaker, M.M., et al., Biochemistry, 1998; 37:8426-8436 155.
- Whitaker, M. W., et al., J. Biol. Chem., 1988; 263:6074-6080 156
- Yang, G. Y., and Shamsuddin, A. M., Histol. Histopathol., 1996; 11:801-806 157
- Yano, T., et al., Proc. Natl. Acad. Sci. USA, 1998; 95:5511-5515 158
- You, L., and Arnold, F.H., Protein Eng., 1996; 9:77-83 159
- Zhang, J.H., et al., Proc. Natl. Acad. Sci. USA, 1997; 94:4504-4509 160
- Zhang, J. X.; Goldenberg, D. P., Biochemistry, 1993; 32:14075 161
- Zhao, H.M. & Arnold, F.H., Protein Eng., 1999; 12:47-53 162
- Zhao, H.M., et al., Nature Biotechnol., 1998; 16:258-261 163
- Zhao, H. M.; Arnold, F. H., Nucleic Acids Res., 1997; 25:1307 164
- Zhao H., and Arnold, F.H., Nucleic acids Res., 1997; 25(6):1307-1308 165

Zhao, H., and Arnold, F.H., PNAS. USA, 1997; 94:7997-800 166

**EXAMINER** 

DATE CONSIDERED: 1.10-2022

\*EXAMINER:

Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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